

IN THE SPECIFICATION:

Please replace the corresponding paragraphs in the specification with the following:

[0013] FIG. 1 is a block diagram of one example embodiment of the disclosed methods and systems, etc.

FIGs. 2A-2C show some variations on a second example embodiment of the disclosed methods and systems;

FIG. 3 is an example of one user interface for one illustrative embodiment of the disclosed methods and systems;

~~FIG. 4 is~~ FIGs. 4A-B are a second example of one user interface for one illustrative embodiment of the disclosed methods and systems;

FIG. 5 is a third example of one user interface for one illustrative embodiment of the disclosed methods and systems;

FIGs. 6A-B show spectrograms related to a sonification embodiment;

FIGs. 7A-B show two embodiments of GP additive synthesis;

FIGs. 8A-B show examples of pre-processing for a sonification embodiment;

FIG. 9 shows examples of post-processing for a sonification embodiment;

FIG. 10 illustrates a sample GUI for a sonification embodiment;

FIG. 11 is an example GUI providing sonified multi-dimensional cluster data;

FIG. 12 provides illustrative 3x3 convolution kernels for different image processing schemes;

FIG. 13 shows the effects of some convolution kernels on an image; and,
FIG. 14 provides an example GUI for an image processing embodiment.

[0036] Once the GA exceeded eighty generations (e.g., Figure 2, 224), the GA was interrupted to display the population of design alternatives 214. In the example embodiment, only four of the solutions were displayed, with those four including the four “best” designs based on fitness and highest diversity in geometrical features. Figures 4A and 4B together show ~~Figure 4 shows~~ an example display provided to a user(s)/designer(s).

Chromosome information is provided on the left-hand pane (Figure 4A). In Figure 4B~~Figure-4~~, the right-hand panes provide objective and constraint information pertaining to the population and the highlighted design alternative. The top pane presents objective values for the highlighted design alternative, with objective preferences and normalization factors used to generate the fitness values of the present population. The spider graph compares the four alternatives based on normalized objective values, and the right-most four graphs display objective values for the entire population. Below the spider chart is a table of constraint parameter values for the highlighted design alternative and respective constraint values. At the bottom of Figure 4B~~Figure-4~~ are graphs displaying the population with respect to its member's constraint parameter values with the infeasible region superimposed.